

new environment (America) took on a greatly increased variability of size.

All we can say in conclusion is that the English Sparrow has changed very little in outward appearance and gross measurements during his sojourn in America. A careful study of a large series in the flesh would probably give results of interest, and perhaps demonstrate an increased variability in American specimens. I should like to add that sparrow skins from the southwest, from Cuba, Bermuda or other isolated points will be most gratefully appreciated by the writer.

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## A NEW SUBSPECIES OF SCREECH OWL FROM CALIFORNIA.

BY J. GRINNELL.

(Contribution from the Museum of Vertebrate Zoölogy of the University of California.)

MATERIAL representing the genus *Otus* has been very slow in accumulating from California. For some years local systematic workers have been of the opinion that two races exist in the region west of the desert divides, both being included in the literature under the name *bendirei*. The present writer is at last fortunate in having access to a sufficient series of skins to enable him to arrive at conclusions; and he is convinced of the desirability of recognizing the two races under separate names, though the series is at the same time inadequate for working out properly their respective geographic ranges. The material for study has been brought together from the Morcom, Swarth, Grinnell and Mailliard collections, and from the California Museum of Vertebrate Zoölogy. The latter institution has recently acquired some northern coast Screech Owls of particular value in the present connection.

The two forms here separated belong to the humid coast belt of California, and to the more arid southern and interior parts of the same state, respectively. Since *Scops* [= *Otus*] *asio bendirei* was described (Brewster, Bull. Nutt. Orn. Club, VII, January, 1882, p.

31) from Nicasio, Marin County, which is situated in the northern humid coast belt, it remains to name the southern race.

**Otus asio quercinus**, new subspecies.

TYPE.— Male adult, no. 5678, coll. J. G.; Pasadena, Los Angeles County California; April 21, 1904; collected by J. Grinnell.

DIAGNOSIS.— Characters in general like *Otus asio bendirei* (see Brewster, l. c.); differs in paler coloration: Light drab or ashy rather than hazel tones prevail dorsally, while beneath the black markings are sharper in outline, with very little or none of the ferruginous marginings. The restriction or absence of ferruginous on the chest, around the facial rim, and on the ear-tufts, is a good character.

GEOGRAPHICAL DISTRIBUTION.— Records of Screech Owls are well distributed over California west and north of the southeastern deserts, from the Mexican line nearly to the Oregon line. In absence of specimens from most of this area, however, it is impossible to fix the boundary lines accurately or to designate the strips of country where intergradation occurs. These can only be inferred, in a general way, from the behavior of better known groups of birds. The material at hand divides up as follows: *Otus asio bendirei*: Guerneville, Sonoma County, 1; Freestone, Sonoma County, 1; Santa Rosa, Sonoma County, 1; San Geronimo, Marin County, 3; Nicasio, Marin County, 1; Oakland, Alameda County, 1; Walnut Creek, Contra Costa County, 4; Palo Alto, Santa Clara County, 2. *Otus asio quercinus*: west slope Walker Pass, Kern County, 2; Bodfish, Kern County, 5; vicinity of Santa Monica, Los Angeles County, 2; vicinity of Los Angeles, 2; vicinity of Pasadena, 7; Mount Wilson, Los Angeles County, 1; Cuyamaca Mountains, San Diego County, 1.

REMARKS.— Birds from the coast belt north of San Francisco Bay are most typical of the race *bendirei* as here restricted. Specimens from Palo Alto, Santa Clara County, and Walnut Creek, Contra Costa County, show more or less departure towards *quercinus*. The palest examples of the latter form are from Walker Pass, Kern County; but there is still plenty of difference between these and *Otus asio gilmani*, of the Colorado River valley. The darkest winter examples of *quercinus*, from Los Angeles County, are darker than Palo Alto skins; but this darkness consists in extension of black and not in a pervasion of warm browns as in Marin and Sonoma County *bendirei*. The latter undoubtedly approach closely to *Otus asio brewsteri*, recently described by Ridgway (Birds N. and Mid. Amer., vi, 1914, p. 700). I have a topotype of the latter, from Salem, Oregon. This specimen is larger than average *bendirei* and is decidedly more pervaded with ferruginous tints on the posterior lower surface. There is thus a series of intergrading forms along the Pacific coast, with *Otus asio kennicottii* at the extreme north, succeeded towards the south by *brewsteri*, *bendirei* and *quercinus*. Of these, so far as yet known, only the latter two occur within the state. The form *gilmani* is distinct, there being no evidence of intergradation between it and *quercinus*.